AMENDMENTS TO CLAIMS

1. (currently amended) A surgical microscope system comprising:

[positioning] a variable focus surgical microscope;

[over] a dental chair, [said dental chair] of the type having a hinge for rotating the patient position, said hinge located near the patient's hips and adapted to rotate about said hinge, said dental chair of the type having a range of vertical motion;[, said system comprising:]

a substantially vertical microscope support arm adapted for fitment on said dental chair, and thereby [adapted for] resulting in vertical motion in [concert with] response to chair vertical motion;

an articulated horizontally movable microscope positioning arm having four or more hinged links, each link having a vertical axis for restricting arm motion solely to a horizontal plane, said microscope positioning arm connected to said vertical support arm with a clamp, said clamp allowing adjustable vertical orientation and vertical motion along the length of said vertical support arm;

a terminal link with a repositionable axis of rotation orthogonal to said substantially vertical support arm proximate said variable focus microscope, whereby said terminal link permits said variable focus microscope to be inclined at any of several discreet pre-selected angles with respect to said substantially vertical support arm thereby allowing the microscope to image a surgical field while placing the oculars proximate the physician;

a microscope coupler for connecting said variable focus microscope to said terminal link, the microscope rotationally attached to the coupler along an axis that is perpendicular to the length of the terminal link and that lies within a plane which is perpendicular to the ground;

a foot control whereby the dental chair can be raised or lowered to position the patient proximate the physician; and

a hand control whereby the patient position can be rotated about said hinge to provide fine focus for the microscope;

whereby the microscope system is supported for vertical motion and location by said substantially vertical support arm and said positioning arm to provide coarse focus for the microscope.

2. (canceled)

3. (canceled)

4. (New) A surgical microscope system according to claim 1, wherein each said link has an upper and lower surface and wherein adjacent links are vertically proximal one another, such that upon folding the links together the lower surface of one link is proximal the upper surface of the adjacent link.

5. (New) A surgical microscope system according to claim 1, wherein said links are arranged in vertical step fashion with a first link proximate said support arm at the lowest vertical position and with a second adjacent link coupled at the top of said first link, and a third link coupled to the top of said second and a fourth link coupled tot he top of the third said link.

6. (New) A surgical microscope system comprising:

a) a substantially vertical microscope support arm adapted for fitment on said dental chair;

b) an articulated horizontally movable microscope positioning arm having four or more hinged links, each link having a vertical axis for restricting arm motion solely to a horizontal plane, said microscope positioning arm connected to said vertical support arm with a clamp, said clamp allowing adjustable vertical orientation and vertical motion along the length of said vertical support arm;

c) a terminal link with a repositionable axis of rotation orthogonal to said substantially vertical support arm proximate said variable focus microscope, whereby said terminal link permits said variable focus microscope to be inclined at any of several discreet pre-selected angles with respect to said substantially vertical support arm thereby allowing the microscope to image a surgical field while placing the oculars proximate the physician;

d) a microscope coupler for connecting said variable focus microscope to said terminal link, the microscope rotationally attached to the coupler along an axis that is

perpendicular to the length of the terminal link and that lies within a plane which is perpendicular to the ground;

e) a hand control whereby the patient position can be rotated about said hinge to provide fine focus for the microscope;

whereby the microscope system is supported for vertical motion and location by said substantially vertical support arm and said positioning arm to provide coarse focus for the microscope.